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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/583,334	05/31/2000	James H. Keithly	876P086	2399

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EXAMINER
PRATT, HELEN F

ART UNIT	PAPER NUMBER
1761	20

DATE MAILED: 03/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS20

Office Action Summary	Application No.	Applicant(s)	
	09/583,334	KEITHLY ET AL.	
	Examiner	Art Unit	
	Helen F. Pratt	1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 January 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21,23-26 and 28-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21,23-26 and 28-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-21, 23-26, 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonaventura et al. in view of Citrus Industry, June 99 and Pao et al. and further in view of Gmitter, Jr., Widmer et al. and Braddock and further in view of Moore (EP 0288 103).

The claims are rejected for the reasons of record and for these further reasons. The claims have been amended to require that the peak harvesting season is earlier than the mid-season cultivar. Moore discloses that it is known to make an orange juice by mixing early season and late season oranges (abstract) and to achieve a particular brix acid ratio. This reference mainly points out that it is known to mix cultivars from various seasons, early and late, to achieve a particular brix/acid ratio. Therefore, it would have been obvious to look at the Brix acid ratio in the process of the combined reference and to choose cultivars, which could contribute to the required ratio.

ARGUMENTS

Applicant's arguments filed 2-21-03 have been fully considered but they are not persuasive. Applicants state that as to removing the limitation that the juice is

pasteurized juice that the office agrees that it is known that not from concentrate orange (NFCOJ) juice includes pasteurization and seem to want the limitation that the juice is not pasteurized read into the claims. This limitation cannot be read into the claims if no support for it is found in the specification.

Applicants argue that the juice found in the reference to Bonaventura is not pasteurized and that the juice of Bonaventura would not have been suitable if it was pasteurized. However, nothing is seen in the specification as to applicants pasteurizing juice, therefore the reference to Bonaventura cannot be excluded.

Applicants argue that other cultivars such as Ambersweet cultivars, which seem suitable for a NFC juice, are not suitable when processed into NFC juice as their sensory qualities do not hold but deteriorate. Applicants further argue that one cannot take teachings from non-NFC art such as Bonaventura and move it into NFC art and expect that mid-season juice can be arrived at. However, it is seen that Bonaventura discloses a Not from concentrate juice because it discloses juice that is fresh and not pasteurized or frozen (1st para.). The specification refers to NFC juice in one place as being "many not from concentrate juices are a blend of freshly squeezed juice with stored juice which can be stored Valencia juice, for example.". and "other round oranges such as Hamlin oranges are early season harvested for freshly squeezed orange juice"(page 2, lines 24-31). Also, the term NFCOJ seems self explanatory. i. e. juice that has not been concentrated. Therefore, the juice of Bonaventura, is also a NFCOJ as it has not been concentrated, as this reference defines its juice as "freshly squeezed" (col. 1, 2nd para, last 3 lines).

Applicants also argue that Bonaventura does not have any teachings of the claimed mid-season cultivars and further states that Bonaventura does not relate to NFC pasteurized juices. However, Bonaventura was not purported to disclose the claimed cultivars, but it does disclose that it is known to use oranges from "various season stages" (page 8 under Summary, 1st para.). It is seen that there is no patentable distinction in the particular cultivar, as the art as a whole discloses that it is well known to determine the claimed characteristics, and this is done routinely on orange juice cultivars, and therefore, it would have been within the skill of the ordinary worker to choose particular cultivars which would produce a desirable orange juice as claimed. For instance, Bonaventura et al. disclose taste evaluation tests, sensory evaluation, brix, acidity, pH etc. (page 286, 1st full para. fig. 2-8), Citrus Industry discloses soluble solids and acid ratio's (table 2) and Pao discloses that it is known to use sensory evaluation and chemical tests on 80 individual and blended unpasteurized citrus juices, which were fresh squeezed and discloses mixing early-season Hamlin orange juice with other juices in various blends. This information was generated to develop a year round juicing program (abstract). Also, Bonaventura discloses that it is known to use taste tests to determine if a juice is liked (page 286, fig. 2). Also, in their list of Literature, books are disclosed with titles such as "Modern scientific sensory methodology and its application to the sensory evaluation of juices" (page 289, under Literature, no. 1). In addition, the reference discloses that tests are made on mixtures of the most important blood orange varieties in different ripening stages (page 1, col. 2,

1st para., and col. 3, 3, first incomplete para.). As above, it is seen that Bonaventura does disclose NFCOJ.

Applicants argue that the references do not show the claimed sensory qualities. However, in claims 1, 21, 26 and 28, the BAR value and sensory values are only greater, than the earlier season round oranges and or the late season round oranges. This seems practical or else there would have not been any reason to add a mid-season juice. At any rate, Bonaventura et al. in particularly, disclose that it is known to combine juices from 3 seasons (abstract). Pao et al. disclose that early season Hamlin orange can be improved by blending with juices of many available var. (varieties?) (Abstract). This statement recognizes that it is known to mix juices in order to improve the flavor or sensory quality of early season juice.

Applicants argue that the Declaration of Taggart shows particular characteristics of seven round orange cultivar juices, and that when made up into NFC juice including pasteurization that the juices were not satisfactory. However, as above, the claims do not require pasteurization nor is this process supported in the specification. Therefore, further arguments as to pasteurization will not be addressed.

Applicants argue that the claimed invention is not obvious due to result effective variables and that it is not disputed that hundreds of cultivars shown in the art are reported with Brix, color and acidity values.

Applicants argue that the Horticultural Field Day, reference to Castle may suggest their invention, but does not disclose an answer to the problem they are trying to solve. The answer to the problem is to pick out from all of the known characteristics

particular cultivars that have required characteristics such as color, brix, and sensory attributes because it is known to blend orange juices to arrive at particular desirable juices and Castle gives the information to do this as do the other references.

Applicants argue that the references fail to show a prima facia case by showing that blending juices is known in general as is using juices from earlier and late peak season cultivars, but that it is not known to use the claimed cultivars. However, as above, given all the data known for the various cultivars, and the fact that such is routinely collected for various orange cultivars, it would have been obvious to choose particular cultivars to use in the claimed process and product.

Applicants argue as to Bonaventura et al. that pasteurization should be read into the claims and therefore, that the reference does not apply. However, as above, pasteurization cannot be read into the claims. Bonaventura et al. makes a not from concentrate juice, i. e. a fresh squeezed juice (abstract).

Applicants argue that even if the specific cultivars are not claimed, that the submitted Declarations overcome the references because blood oranges and unpasteurized juice compared favorably with other cultivars and unpasteurized juices, but when made into a NFCOJ showed off-flavors. However, as above, the reference was not used to show particular cultivars or pasteurization effects, but to show that it is known to use mid-season cultivars with early and late fruit and it is not seen that applicants' juice is pasteurized.

Applicants argue that when the orange juice of Bonaventura et al. was made into a NFCOJ, that it showed off-flavors. However, it is not required that the juice of the

reference be subjected to pasteurization as the instant claims or specification do not require such.

Applicants argue that Bonaventura et al (BA) teach blending juice from blood orange sources and not from different cultivars. However, nothing is seen that only one cultivar was used, or that "blood orange" refers to only one cultivar.

Applicants argue further that BA do not teach blending their blood oranges with cultivars which have different peak harvesting times such as early and late maturing cultivars or combining them with particular cultivars. The references show combining juices from early, middle and late season (col. 3, 1st. para, on page 284). Certainly, this is the same concept as combining fruit from different seasons, i. e. for oranges. The specification discloses that the Valencia season is Feb and June, and Hamlin's season is Oct.-Dec. and Pineapple is mid to later i. e. Dec. and March. Certainly, the applicants don't mean Fall, winter, spring, and summer. (pages 2 and 3 of spec.) . If different seasons are used as in BA then early growing oranges are earlier than middle season and late season is before the middle season. It is seen that it would have been within the skill of the ordinary worker to pick the oranges when ripe , i. e. at their peak season. No reference is seen to unripe fruit.

Applicants argue that the office position of using blood oranges is not pertinent to using varieties suitable for NFC juice. However, this is seen as another attempt to read a pasteurization limitation into the instant claims and specification and as above, the reference was used to show that it is known to blend juices from various seasons.

Applicants then argue that the specific claimed cultivars are what fills the gap in the problem of NFC juices. However, as above, it is well known to look at the characteristics of various cultivars and to blend juices according to their known characteristics and Bonaventura et al. do show blending of juices from various seasons.

Applicants argue the references separately, and note that Citrus Industry does not disclose sensory data specific to NFC processing. However, it does show characteristics of each orange cultivar. However, Certainly, Bonaventura et al. does (fig. 2, and TAB 1, page 286).

Applicants argue that the Pao et al. abstract does not show their specific cultivars. However, it does show that sensory evaluation and chemical test were carried out on no less than 80 individual and blended unpasteurized citrus juices and shows that it is routine in the industry to perform sensory evaluation and chemical tests on oranges and to blend them on the basis of such (abstract).

Applicants argue that Gmitter, Jr. and Widmer et al. do not show their invention, but they are used more broadly to show that it is known to use information about juice quality and maturity season in the selection process in tree breeding (page 165, last para). and as in Widmer to use early maturing fruit to improve the color of early season processed juice. Selection of trees is of course important in order to have oranges growing in the proper season. Even if Ambersweet juice was not a good selection for NFCOJ, this does not mean that it is not obvious to look at a long list of cultivars, that have their various characteristics such as brix, acidity, soluble solids, and color cited, and choose other oranges to blend to obtain particular characteristics in juice. If

pasteurization (not claimed or disclosed in the instant specification), is as common as applicants say, then certainly, it would have been routine to also pasteurize the blended juice.

Applicants argue that until the solution achieved by the present invention, that providing an improved NFC juice using mid-season cultivars was not known in the industry, as nothing has been made of record. However, nothing has been shown as to the various known fruit juices in the market today which are NFCOJ's and are acceptable products as to their cultivars and the seasons of their availability. The Patent Office is operating in a blind as to this matter.

Applicants argue that the claimed cultivars have not been shown, especially those superior to the Hamlin orange. However, as above, the various juice characteristics are known, and blending is known, and early, late and middle season blending is known.

Applicants argue that there must be a reasonable expectation of success and that only applicants disclosure cites the right cultivars. However, mixing and blending of juices is well known, and certainly, it is known what happens when one uses a cultivar which produces a particular amount of color, acidity, or brix. Just as in adding a sweetener to water, the more that is added, the sweeter it gets, the same can be said as to adding colored materials, acid juices, and juices with particular brix, (soluble solids) and on.

Applicants argue that knowledge of properties of the prior art (non-NFC juice) does not balance against unexpected properties, and the unexpected properties are

fulfilled by the claimed cultivars. However, as above, applicants' claims and specification are not to pasteurized juice, therefore, the art (Bonaventura et al.) can be used to show that it is known to combine orange juice from various seasons. The unexpected properties can be determined by taste and sensory tests, also common in the art.

Applicants argue that the references do not show evidence in fulfilling a long-felt need in reference to Ambersweet in NFC processing. However, it is a terrific burden on the office to be aware of every orange cultivar and its properties. Juice properties are known in general, and the Office is not limited to a showing that one cultivar would not work in the claimed invention because the characteristics of so many cultivars are known.

Applicants argue as to In re Rijckaert that obviousness cannot be predicated on what is not known at the time the invention was made and that a retrospective of certain cultivars does not substitute for a teaching in the art. However, as above, if it is known to determine various characteristics of orange juice and to blend juices, and to blend juices from various seasons, including the middle season juice (Bonaventura et al). , and it is known to use sensory tests and taste tests (Bonaventura et al), it would have been obvious to choose cultivars, which had the required characteristics from all of the above.

Applicants argue that one cannot use the obvious to try rational. However, this is the standard of the juice industry, i. e. blending juices, using seasonal juices, according to known criteria.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Helen F. Pratt at telephone number 703-308-1978.

Hp 2-26-03

HELEN PRATT
PRIMARY EXAMINER